

What is claimed is:

1. A method of confirming a receipt of protocol data unit in a mobile communication system, the method comprising a step of sending a polling signal to a receiving system during a transmission of protocol data units (PDU) when the condition of the followings are satisfied,

(1) the sequence number of the next PU to be transmitted for the first time(VT(S)) is smaller than the sequence number of the first PU not allowed by the peer receiver (VT(MS))

(2) the window transmission percentage(X) is bigger than the parameter which indicates when the transmitter should poll the receiver in case of performing window-based polling(Poll_Window), wherein the equation for window transmission percentage(X) is a function of the sequence number of the next PU to be transmitted for the first time(VT(S)), and do not have maximum value when the sequence number of the next PU to be transmitted for the first time(VT(S)) equals to the sequence number of the first PU not allowed by the peer receiver (VT(MS)).

2. The method as claimed in claim 1, wherein the

equation is as follows,

$$\left[1 - \frac{(Tx_window_size + VT(MS) - VT(S) - 1) \bmod Tx_window_size}{Tx_window_size} \right] \times 100$$

= $X > Poll_window$ (%)

5 , where

Tx_window_size represents a maximum number of said protocol data units that can be transmitted.

3. The method as claimed in claim 2, wherein the
10 values of said Tx_window_size and said Poll_window are obtained from an upper layer.

4. The method as claimed in claim 2, wherein the
value of said VT(MS) is calculated by the equation,
15 VT(MS)=VT(A)+Tx_window_size, wherein VT(A) is the sequence number of the next in-sequence PU expected to be acknowledged.

5. The method as claimed in claim 2, wherein the
20 value of said VT(S) is updated by the equation,
VT(S)=VT(S)+1 and must satisfy the equation, VT(A)≤ VT(S)
<VT(MS).

6. The method as claimed in claim 5, wherein said VT(A) represents the lowest sequence number of said protocol data units subjected to be transmitted, and the value of said VT(A) is updated to the lowest sequence number of said protocol data units required to have an acknowledgement status.

7. The method as claimed in claim 5, wherein an error is reported to an upper layer when said equation, $VT(A) = < VT(S) < VT(MS)$ is not satisfied.

8. The method as claimed in claim 1, further comprising the step of sending said protocol data unit having its sequence number equal to the value of said VT(S) when said condition is satisfied.

9. The method as claimed in claim 2, further comprising the step of exiting if the value of said VT(S) is equal to said VT(MS)-1.